

# ROTEL *hi fi*

## RCC 945 Compact Disc Changer

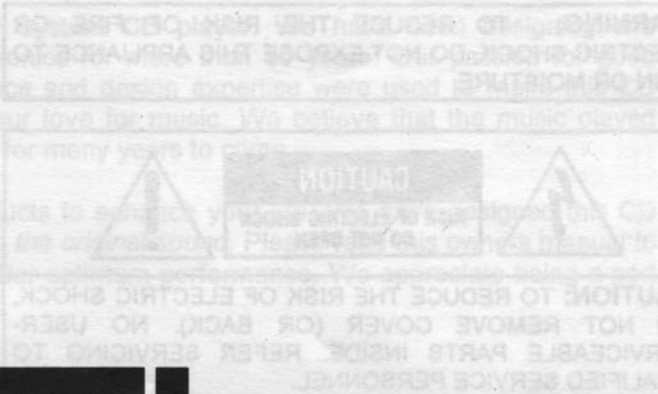
# Owners Manual

English/German/Spanish section included.

Please write the serial number purchase date and ROTEL *hi fi* AUTHORIZED DEALER for your records in the space provided.


Serial Number \_\_\_\_\_ Purchase date \_\_\_\_\_

ROTEL *hi fi* AUTHORIZED DEALER \_\_\_\_\_




# SAFETY INSTRUCTIONS

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



**CAUTION**

**RISK OF ELECTRIC SHOCK**  
**DO NOT OPEN**



**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

## Explanation of Graphical Symbols

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.



1. **Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** - All operating and use instructions should be followed.
5. **Water and Moisture** - The appliance should not be used near water - for example, near a bathtub, kitchen sink, laundry tub, in a wet basement or near a swimming pool, etc.
6. **Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
- 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.
7. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. **Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may that may impede the flow of air through the ventilation openings.
9. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves or other appliances (including amplifiers) that produce heat.

**PORTABLE CART  
WARNING**



10. **Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Grounding or Polarization** - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
12. **Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles and the point where they exit from the appliance.
13. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.
14. **Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through the openings.
16. **Damage Requiring Service** - The appliance should be serviced by qualified factory-authorized service personnel when:
  - The power-supply cord or the plug has been damaged; or
  - Objects have fallen, or liquid has been spilled into the appliance; or
  - The appliance has been exposed to rain; or
  - The appliance does not appear to operate normally or exhibits a marked change in performance; or
  - The appliance has been dropped, or the enclosure damaged.
17. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified factory-authorized service personnel.

**DANGER:** Invisible laser radiation when you open the top cover, audio direct exposure to laser beam

**CLASS 1 Laser Product.** Complies with DHHS 21 CFR 1040.10 and 1040.11.

**CAUTION:** Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

APPLICABLE FOR U.S.A., CANADA OR WHERE APPROVED TO THE USAGE.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**ATTENTION:** POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

## A WORD FROM ALL OF US AT ROTEL

Thank you for purchasing our RCC 945 6 Disc Shuttle System CD player. We have been designing and manufacturing high quality, high performance audio electronics for more than 30 years. Our passion for good sound and our love of music is well known. Our experience and design expertise were used to make this CD player offer lifelike sound. This is a natural extension of our love for music. We believe that the music played through your RCC 945 will be a source of enjoyment to you for many years to come.

The people at Rotel are committed to making quality products to enhance your life. We have designed this CD player to be durable, easy to use and to have *high fidelity to the original sound*. Please read this owners manual to ensure that the RCC 945 is properly installed and able to offer optimum performance. We appreciate being a part of your life.

## FEATURES OF THE RCC 945 CD PLAYER

This CD player uses a Pulse Width Modulated (PWM) 1 bit dual digital to analog converter with a second order Delta Sigma ( $\Delta\Sigma$ ) noise shaping circuit. This is followed by a digital filter equivalent to 8 x resampling. The Shuttle System will allow you to load and store as many as 6 discs in the RCC 945 at one time. The RCC 945 is a good sounding CD player that will be an entertaining source of music for your sound system.

RCC 945 will allow convenient playback of multiple CDs for serious listening or for background music. It is easy to program selections from more than one disc for play or recording. RCC 945 allows random play of discs and songs. The display is informative and will provide detailed information about selected operating modes when the appropriate buttons are pushed on the front panel or the remote control. The remote control duplicates all of the controls on the front panel and also has direct access keys for discs/tracks loaded in the 6 disc shuttle system.

We have provided a 75 ohm coaxial digital output on the back panel. This should be connected to the Rotel RDP 980 Digital Signal Processor with a 75 ohm patch cable, if even higher sonic performance is desired.

## INSTALLATION OF THE RCC 945

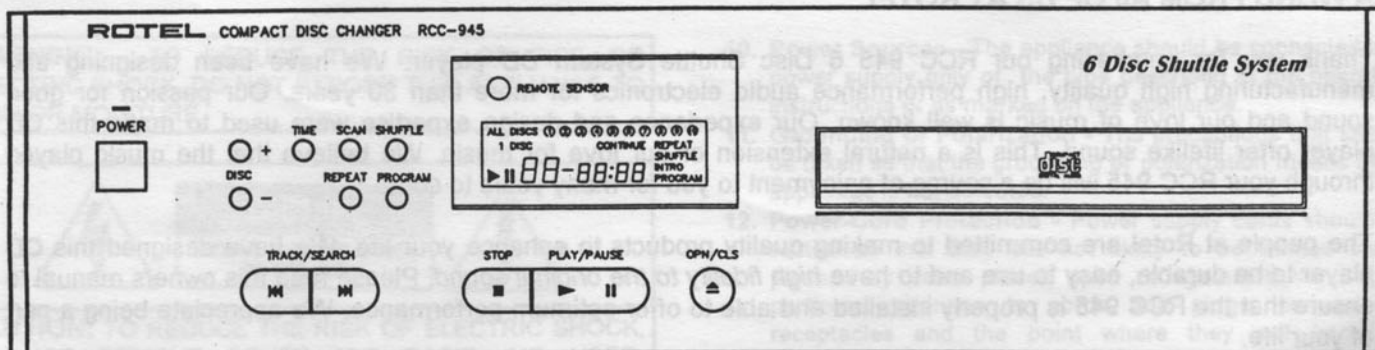
Please place the unit on a **DRY**, level surface away from direct sunlight. Avoid placing objects on top of the RCC 945. Do not allow water to fall onto or into the RCC 945 as this could damage the circuitry. Avoid installing the CD player in a location where excessive heat, humidity, vibration or moisture will be a problem. We urge you to install the RCC 945 in furniture designed to house audio components. This will allow the CD player to be on a separate **shelf** of its' own, with nothing stacked on top of it. Component furniture will reduce or suppress vibration. Vibration absorbing feet or shelves may also be beneficial. *All audio components will provide improved sound when free from mechanical vibration.* Ask your **ROTELhi fi AUTHORIZED DEALER** for advice about component furniture and proper installation of audio components.

## ELECTRICAL REQUIREMENTS

This CD player was designed to work on AC voltage and the correct voltage is displayed on the Back Panel. **Do not attempt to operate the RCC 945 on incorrect voltage as this will damage the circuitry and will void your warranty.** If you are in doubt about the correct voltage for this CD player please read the label on the back panel or consult your **ROTELhi fi AUTHORIZED DEALER** for confirmation of the correct voltage. Connect the Power Cord to your wall socket for AC power. When you wish to disconnect the power cord from the wall always grasp the plug firmly and then pull it out of the wall socket. *Do not unplug the power cord from the wall by pulling the cord only. This may damage the power cord and create a hazardous condition.*

For the best sound, we recommend that the RCC 945 be connected to the mains wall socket or an AC power line filter, not an extension cord. There is **NO** user serviceable part inside the RCC 945. **Please do not open the cabinet as this will expose you to the risk of potentially dangerous high voltage or the risk of shock. The LASER inside could also be HAZARDOUS to your health and eyesight.** This could also damage the circuitry and possibly void your warranty.

If you wish to clean the cabinet on the RCC 945 we suggest that you clean it with a soft, DRY cloth. *Never use harsh cleaning compounds or solvents to clean the cabinet as they may damage the finish or remove the labels.* They could also damage the circuitry if any residue falls inside the CD player.



Please refer to this drawing of the front panel when reading the section about Loading, Controls or the display on the RCC 945.

### LOADING A CD INTO THE RCC 945

To load a CD into the RCC 945, **CHOOSE** a slot with +/- button and press the **OPN/CLS** button. The loading tray will open. Place a CD, label side up, in the loading tray. Press the OPN/CLS button again, the tray will close and the shuttle system will load the disc into one of its loading slots. The display will show which number the disc is by highlighting the disc number in parenthesis. Continue loading discs by repeating this procedure until the RCC 945 is full or until you have the number of discs you want loaded in the shuttle system.

### CONTROLS ON THIS CD PLAYER

The **POWER** button will turn the CD player **ON** and **OFF**. Push it once and RCC 945 will turn ON. The **POWER INDICATOR LIGHT** and the **DISPLAY** will illuminate at the same time. If you push the Power button again the power will go OFF and the Power Indicator Light and the Display will extinguish.

Note: If you use your system with a remote controlled preamplifier or surround sound processor *with switched AC outlets*, it may be convenient to leave the **POWER** button in the ON position. Then you may switch the power ON and OFF to RCC 945 with the preamplifier or surround sound processors remote control. Ask your **ROTEL hi fi** Authorized Dealer for advice about this, if this unfamiliar to you.

We have included the most commonly used controls on the front panel. The **OPEN/CLOSE**, **PLAY**, and **STOP** buttons are underneath the **Display**. The **PROGRAM**, **SCAN**, **SHUFFLE**, **REPEAT**, **TIME**, **DISC +** and **-** and **TRACK/SEARCH** buttons are to the left or lower left of the Display. The Display panel includes the **REMOTE SENSOR** for receiving the Infra Red signals from the **REMOTE CONTROL**. Please be certain not to block this as remote control will not function if this is covered or blocked.

The **OPN/CLS** ( $\Delta$ ) button will **OPEN** the drawer after you have pushed it. The Display will show the Disc number in parenthesis, 00 and OPEN. A second push of the button will **CLOSE** the drawer with the Display showing the disc number, 00 and LOAD. The Display will first show 00 and LOAD and then **NO DISC** when there is no CD in the loading tray. When a disc is in the tray the Display will show the number of Tracks and the Total Time on the disc.

Pressing the **PLAY** button while the drawer is open will cause the drawer to Close and will start Play. The Display will read 00 and LOAD when you do this. You may select a track number before pressing Play and the CD player will begin play with the selected track number. The disc number, play indicator "arrow" and the word LOAD will "blink" in the display. You may also *gently* push the drawer inward and it will close. The **STOP** button will stop all functions and the display will show the disc number, total track numbers and the total time on the disc in the tray.

Pressing the **PLAY/PAUSE** button a *second time* will make the CD player stay in the same place on the CD while the CD continues to spin. No sound will be heard until you *press the PLAY/PAUSE button again* to resume playing the disc. The Pause indicator (II) will illuminate in the display next to the Play arrow.

The **TRACK/SEARCH** buttons (I<<, >>I) will advance to the next Track (>>I) or will go back to the previous Track (I<<) on the disc. If you are in the middle of a song and you press the I<< Track button once, the player will begin the same song again. If you press it twice, *quickly*, it will play the previous song on the disc. If you are in Pause and you press the I<< Track button once it will proceed to the beginning of the same track and wait for you to press the Pause or Play button. Pressing the >>I Track button will cause the CD player to skip to the next track on the disc. The **TRACK/SEARCH** buttons will cause the CD player to go forward or backwards in time quickly when playing a song, *if you continually press the forward or reverse button*. Release the button when you have reached the desired time in your selected song track.

The **PROGRAM** button will be used when you program song tracks on the disc (or discs) for play in a specific order or to make a recording. The RCC 945 will remember up to 16 tracks in a program.

To begin a PROGRAM, load a disc into the drawer and press the OPN/CLS button. The RCC 945 will read the table of contents on the disc and display the total track number and total time on the disc. Press the PROGRAM button on the CD player or the remote control. The display will show P, the disc and track number and the word PROGRAM. Now you can select the disc and track number you wish to program. Press DISC + or - (D1-D6 on the remote control) to change the disc selected during programming. Press the PROGRAM button again and the disc/track numbers will be entered into the program memory. Repeat this for the discs/tracks you wish to program. The disc/track numbers will illuminate in the display as you enter them into your PROGRAM. You may review the disc/track sequence entered into the program by pressing the PROGRAM button repeatedly. At the end of the PROGRAM, the display will show END and "blink" PROGRAM. Pressing the STOP or OPN/CLS button will erase a program from the memory. SCAN and PROGRAM may be combined.

**SCAN** will play ~10 seconds of each song on a disc. The word INTRO and the track/disc number will show in the Display. Pressing SCAN a second time will cause it to SCAN all discs in the RCC 945 shuttle system. Pressing SCAN a third time will defeat SCAN.

Pressing **SHUFFLE** will randomly play tracks (continuously) on the selected disc until the STOP button is pressed. SHUFFLE and 1 DISC will show in the display. Pressing SHUFFLE again will cause it to play all the discs/tracks in the RCC 945 randomly until STOP is pressed. Pressing SHUFFLE a third time will defeat SHUFFLE operation. SHUFFLE and SCAN functions may be combined, if you wish. (SHUFFLE and PROGRAM will not combine.)

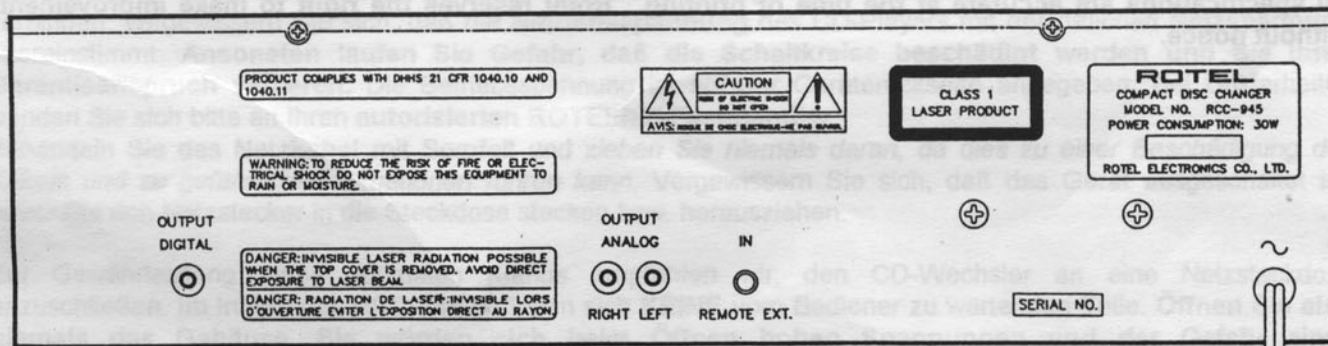
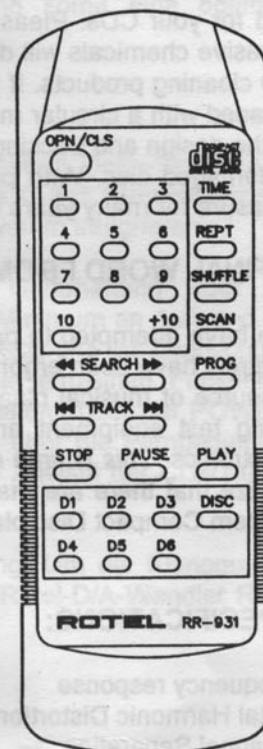
The **REPEAT** button will allow you to play 1 song, 1 disc or all discs repeatedly. The words REPEAT, 1 DISC REPEAT or ALL DISCS REPEAT are shown in sequence in the display panel as you push the button. Pressing REPEAT again, when ALL DISCS REPEAT is displayed, will defeat this function.

The **TIME** button will change the display readout from the track number and elapsed time to remaining track number and time remaining in a song. Press it again to see the track number and elapsed time.

The **DISC (+ and -)** buttons will select the disc number and begin PLAY. The display will show which disc is currently selected, the track number and the total time on the disc. When the RCC 945 loads a disc into the shuttle system, it will read the table of contents of the disc. It will show this information for all the discs loaded as you select them with the + and - buttons. It will briefly show 00 and LOAD during the changing of discs by the shuttle system.

The **REMOTE CONTROL** handset duplicates all the functions on the front panel of the RCC 945, except the + and - buttons are changed to DISC or D1-D6. (Press DISC for sequential selection of discs or D1-D6 for direct disc selection.) It adds direct access keys for the track numbers and SEARCH buttons for fast forward or fast reverse of a song in play. To play a track higher than 10 you should press the +10 button to add the track numbers together. For example, to play track 28 you would push the +10 button twice and then push 8. To ensure proper operation of the remote control, aim it directly at the front panel display of the CD player.

The direct access track keys and the **STOP** key are black. The Function keys, **DISC** keys, the **OPN/CLS** key and the **PAUSE** key are grey. The **PLAY** button is orange. The keys are designed to be visually easy to identify and use.



Please refer to this drawing which shows the analog, digital and external remote connections on the rear panel of the RCC 945.

## CONNECTING THE RCC 945 TO YOUR STEREO

The rear panel of the RCC 945 has the analog output connections. These are RCA jacks and should be connected to the CD or AUX input of your stereo integrated amp, receiver or preamplifier. Please observe the correct Left and Right channel connections for optimum enjoyment of your stereo. REMOTE EXT. is to connect the RCC 945 to Rotel amplifiers, preamplifiers or surround sound processors in custom installations. The 75 ohm coaxial digital output should be connected to the digital coaxial input of the RDP 980 for the best possible sound. *High performance analog and digital RCA patch cables will improve the sound of your stereo and we recommend them.* Ask your **ROTEL hi fi AUTHORIZED DEALER** for advice about high performance patch cables in your system.

## STORAGE AND CARE OF YOUR COMPACT DISCS

*Storing your CDs in the jewel box or package when not in use is a great idea.* Scratches, moisture and dirt are very bad for your CDs. Please keep your CDs clean, dry and scratch free for optimum sound quality. Solvents and abrasive chemicals will damage or destroy your CDs. When cleaning them, use only pure (*not* rubbing) alcohol or CD cleaning products. If you clean a CD, clean from the center to the outside in a straight line. CDs should not be cleaned with a circular motion around the center. This will prevent scratches being made in a circular pattern. Due to the design and tracking characteristics of any CD player, a circular scratch is the most problematic when playing a damaged disc. With proper storage and a little care, your CDs will offer excellent sound quality and musical pleasure for many years to come.

## A FINAL WORD FROM ROTEL ABOUT THIS CD PLAYER

We have attempted to provide a good sounding multiple CD player with simple but comprehensive features. The controls have been ergonomically designed for easy operation without confusion. We believe the RCC 945 will be a source of musical pleasure to you for years to come. We have designed this CD player for high performance using test equipment and the human ear. We believe that both methods are valid in the design of audio electronics. *This is time consuming but we feel that the music benefits from this care and attention to detail.* We realize that there are many choices available and we thank you again for choosing the RCC 945 6 Disc Shuttle System Compact Disc player to play your compact discs. *Enjoy the music!*

## SPECIFICATIONS: RCC 945 COMPACT DISC PLAYER

Frequency response	20-20,000 Hz $\pm$ 0.8 dB
Total Harmonic Distortion + Noise	<0.01% @ 1 kHz
Channel Separation	> 95 dB @ 1 kHz
Signal to noise ratio	> 96 dB
Speed accuracy, wow and flutter	Quartz crystal accuracy
Digital to analog converter	1 Bit Pulse Width Modulated
Digital filter	8 x resampling equivalent
Power requirements	120 volts AC 50/60 Hz 220-240 volts AC 50/60 Hz
Power consumption	30 watts
Weight	6.1 kg (13.4 Lb.)
Dimensions	440 x 121 x 316 mm (W x H x D) 17-3/8" x 4-13/16" x 12-7/16" (W x H x D)

**All specifications are accurate at the time of printing. Rotel reserves the right to make improvements without notice.**